Using the 2MASS Calibration Database to Identify Near-Infrared Variability and Search for Eclipsing Jovian Companions to M Dwarfs

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We present initial results from a near-infrared variability search using the 2MASS Calibration Database. This multi-band and multi-epoch database provides a unique and unprecedented data set to search for sub-stellar and stellar companions using the standard occultation technique, and to identify other near-infrared variable candidates such as AGN and cataclysmic variables. By using color cuts to identify M-type dwarfs, we gain in occultation depth relative to solar-type stars for an equivalent-sized eclipsing secondary. We identify candidate variables, thought mostly to be extragalactic, and we identify candidate M Dwarf eclipsing systems and other periodic variables. We place constraints on the abundance of short-period Jovian companions to M Dwarfs.